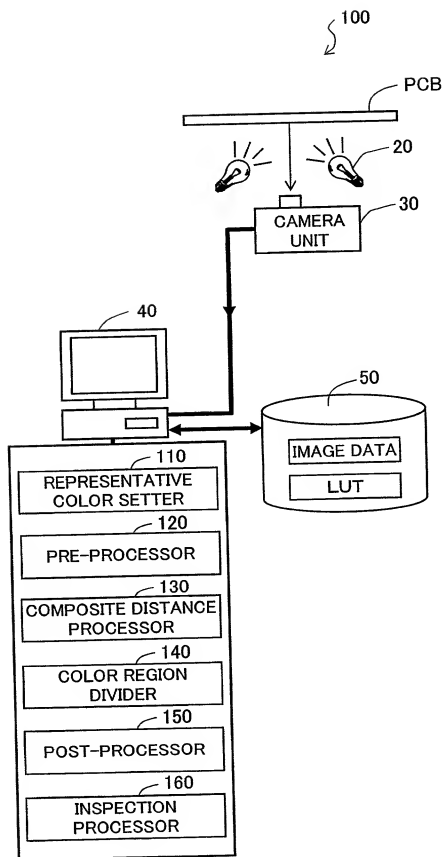
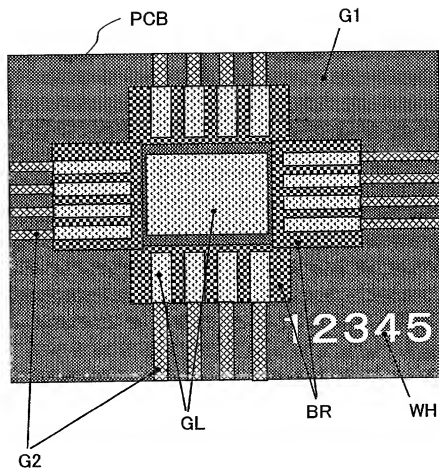


Fig. 1



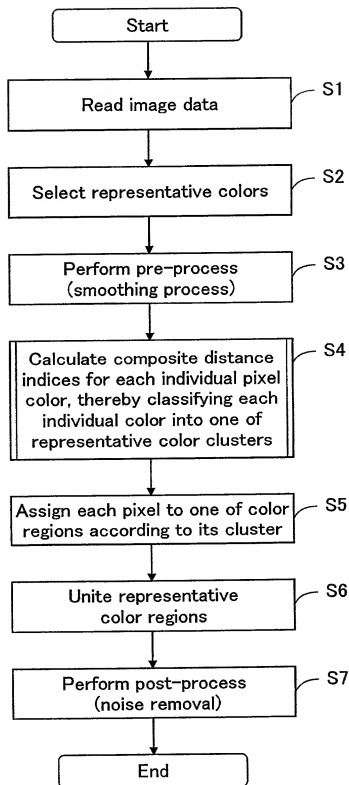
10077962.022002

Fig.2



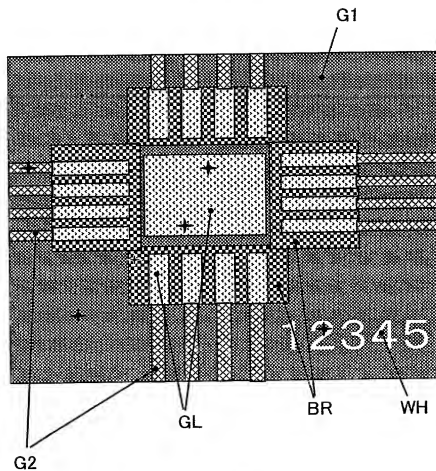
- |    |   |                  |  |
|----|---|------------------|--|
| GR | { | GREEN REGION G1: | BOARD BASE REGION COATED WITH RESIST<br>(RESIST REGION WITH LOWER BRIGHTNESS)      |
|    |   | GREEN REGION G2: | COPPER WIRINGS REGION COATED WITH RESIST<br>(RESIST REGION WITH HIGHER BRIGHTNESS) |
|    |   | GOLD REGION GL:  | REGION PLATED WITH GOLD  |
|    |   | BROWN REGION BR: | REGION OF BOARD BASE   |
|    |   | WHITE REGION WH: | REGION PRINTED WITH WHITE CHARACTERS   |

Fig. 3



10077962.022002

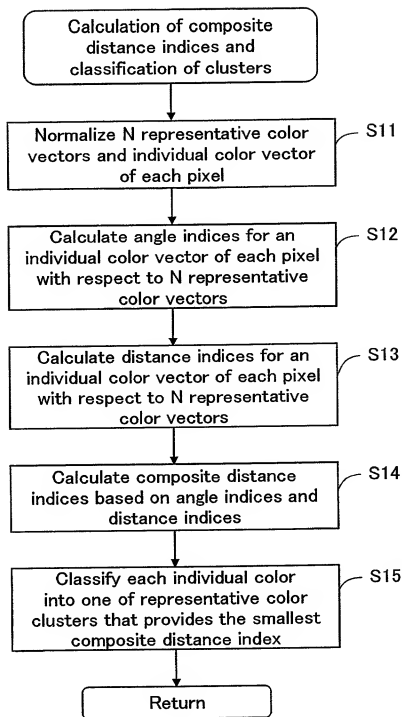
Fig. 4



+ : SAMPLE POINT

FIRST DIVIDED REGION DR1	{	GREEN REGION GR	{	G1
				G2
SECOND DIVIDED REGION DR2	{	GOLD REGION GL		
			BROWN REGION BR	
THIRD DIVIDED REGION DR3	{	WHITE REGION WH		

Fig.5



10077962.022002

Fig.6A

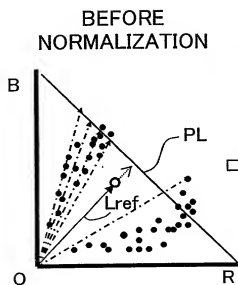
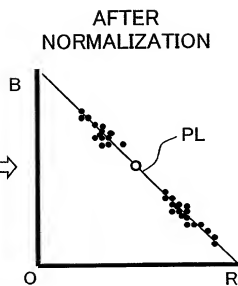
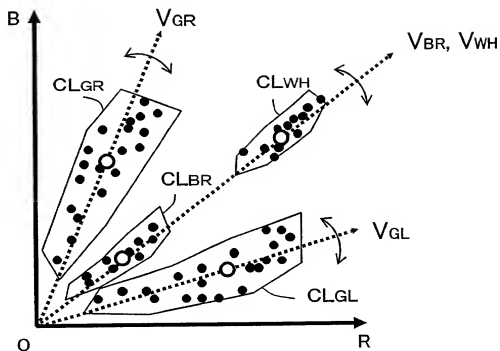


Fig.6B



- : REPRESENTATIVE COLOR  
● : INDIVIDUAL COLOR

Fig. 7

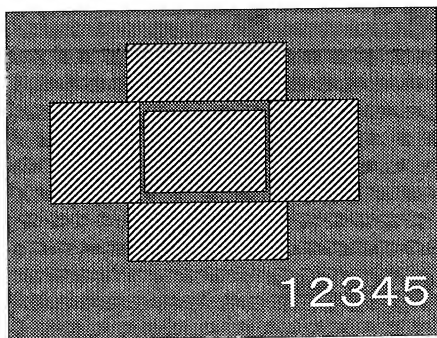


C L G R : GREEN CLUSTER    V G R : GREEN REPRESENTATIVE VECTOR  
 C L G L : GOLD CLUSTER    V G L : GOLD REPRESENTATIVE VECTOR  
 C L B R : BROWN CLUSTER    V B R : BROWN REPRESENTATIVE VECTOR  
 C L W H : WHITE CLUSTER    V W H : WHITE REPRESENTATIVE VECTOR

○ : REPRESENTATIVE COLOR

● : INDIVIDUAL COLOR

Fig. 8






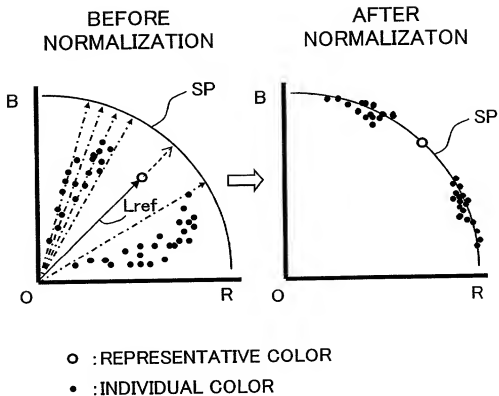
-  : FIRST DIVIDED REGION DR1 ( $G1+G2$ )
-  : SECOND DIVIDED REGION DR2 ( $GL+BR$ )
-  : THIRD DIVIDED REGION DR3 (WH)



Fig.9A

Fig.9B



10077962.022002

Fig. 10A

APPROPRIATE CLUSTERING

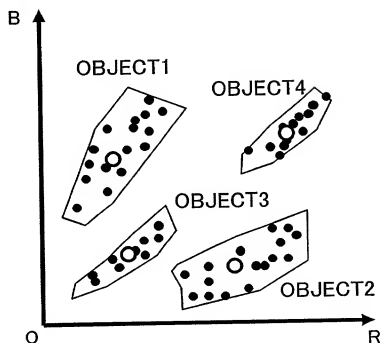


Fig. 10B

INAPPROPRIATE CLUSTERING

